

# **Merseyside Fire and Rescue Service**

## **Mobilising and Communications Centre**

### **Consultation Paper - Staffing Patterns**

#### **Introduction.**

The Authority's Integrated Risk Management Plan 2006/07 details how alternative staffing arrangements would be considered. Action point 2.12 says we will examine and introduce where appropriate, alternative duty systems and staffing levels.

This paper details the outcomes of that examination and it is intended that any new arrangements will improve flexibility for staff, be family friendly and more efficient

The current situation where the same number of staff, are scheduled on shift at all hours of the day, does not represent the profile of the work undertaken by MACC staff. Call activity follows a very predictable pattern and creates the opportunity to align staff more closely with this profile. To do this requires alternative shift patterns for the current 2.2.4 system this document will show the demand profile of calls received by MACC. This will ensure a more effective and efficient response.

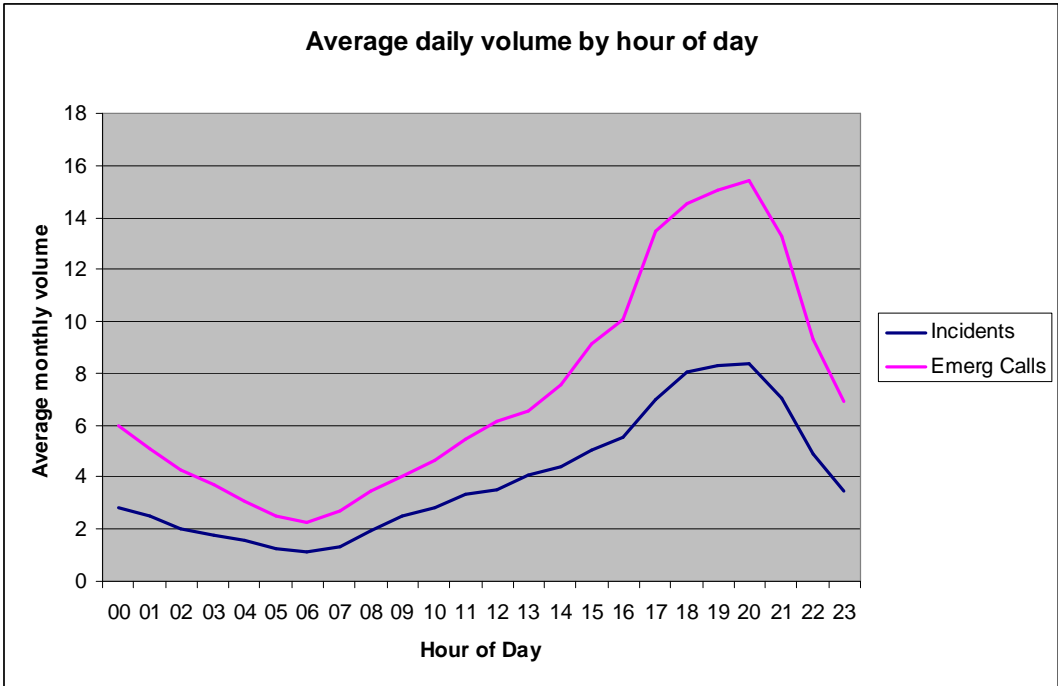
There are three shift patterns described in this document, and we will be seeking the views of MACC staff as to which is their preferred option.

#### **Demand**

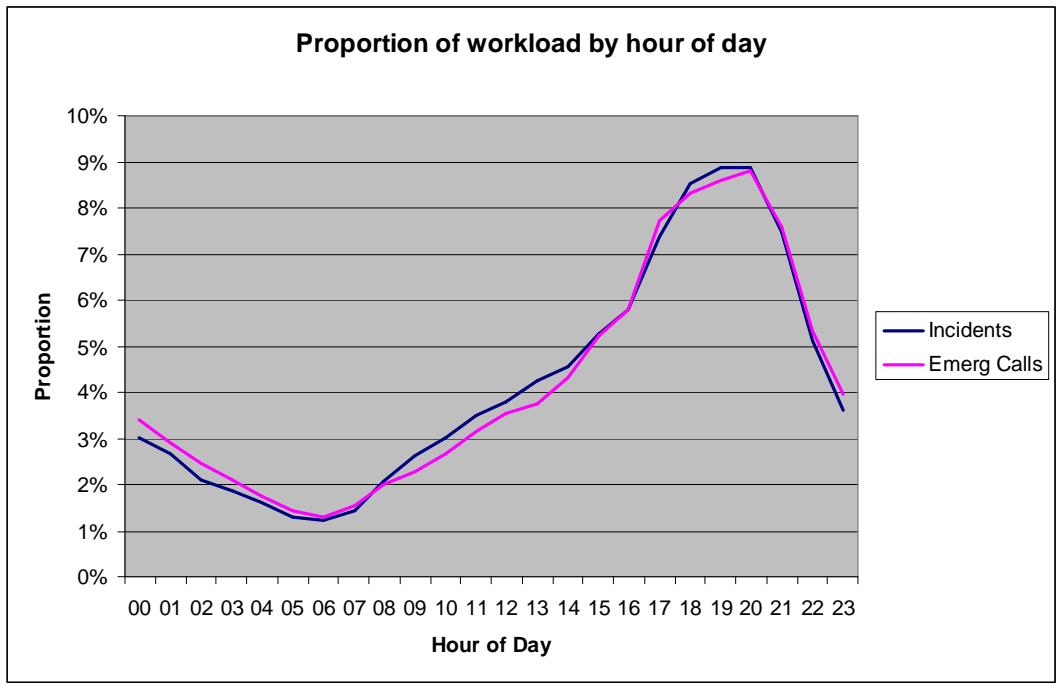
The demand placed upon MACC in terms of incoming call volumes are shown in the graphs below. The graphs show how the volume of calls varies over the period of a day, it also compares incoming emergency calls with incident volumes:

When taking account of demand workload placed on MACC staff and call profile, it should be noted that the current duties in relation to Central Staffing, will cease in the near future. The responsibility for Central Staffing will be transferred, freeing up MACC completely from these duties.

Graph number 1, shows the average number of incidents and calls for each hour of the day over the calendar year. (Year 2004 was used for the study). Unsurprisingly the number of emergency calls is higher than the number of incidents. However, graph number 2, (which 'standardises' the data by looking at the proportion of calls and incidents in each hour) shows that the ratio of calls to incidents remains static across the day.

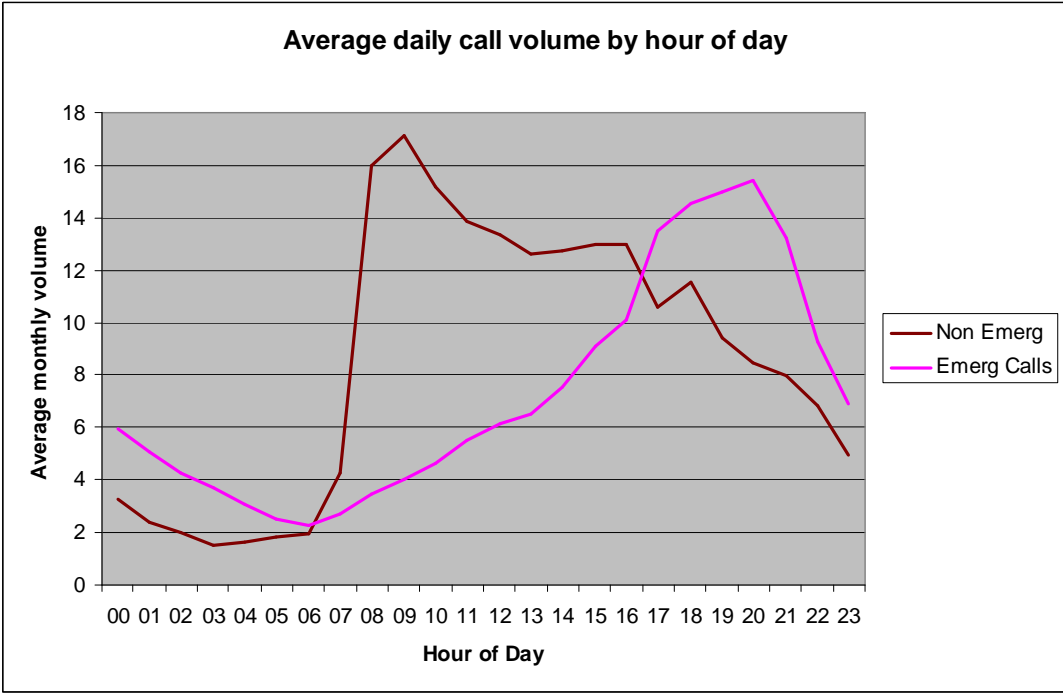


Graph Number 1.



Graph Number 2.

MACC also answers non-emergency 'admin' calls. The graph below compares the volume and profile of emergency and non-emergency calls:



An independent company, who are experts in this field, were engaged to analyse the data on call activity and asked to produce a report that ensured the maintenance of an effective MACC response and produce alternative shift patterns that recognised the variances in call activity.

The demand data presented here, along with data on average call lengths for the different call types have been used to build a simulation model of MACC. This model has been used to profile the number of staff required at work without affecting service levels. Using this method, it has been shown that the table below represents the minimum number of call takers (either FCOPs and LFCOPs) who should be on shift at each hour of day (i.e. actually at work in the control centre).

Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Operators	3	3	3	2	2	2	2	2	3	3	3	3	4	4	4	5	5	7	8	8	8	7	5	5

Allowing for current levels of abstraction ( ie. annual leave, public holiday leave, sickness and training ) and staffing requirements overnight, the table below is therefore the number of staff who should be rostered on shift for each hour of the day in the shift planning solution described later in this document:

Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Operators	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	7	7	9	10	10	10	9	7	7

It is important to note that the staffing profiles above do not include the management of the control room (i.e. Fire Control Officers and Mobilising Officers). They are considered separately later in this document.

**Staffing Options available.**

The Staffing profiles below on which consultation is taking place, all use 6 teams of 5 staff (30 staff in total), operating the following 12 hour shifts:

Shift	Start Time	End Time	Length	Staff Required
M1	08:00	20:00	12	5
A1	12:00	00:00	12	5
N1	20:00	08:00	12	5

It is anticipated that each team would consist of 3 FCOps and 2 LFCOps, although this may depend on decisions to be taken regarding required numbers of mobilising officers.

In any one day, one team will be scheduled onto each of the shifts. In this way, the M1 and N1 shifts provide a 'core' base of 5 staff 24 hours a day and the A1 shift an additional 5 staff at the peak of the day. It should be noted that although the start and end times of M1 and N1 have been given here as 8am/8pm this could be altered to any start/end time provided the N1 shift starts when the M1 shift ends and vice versa.

The 3 ways in which these shifts could be scheduled amongst the teams are detailed below:

**Option 1A – 4 on, 4 off**

	1							2							3							4							5							6							7																																																				
	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su																																														
A	M1	M1	M1	M1				A1	A1	A1	A1				N1	N1	N1	N1												M1	M1	M1	M1												A1	A1	A1	A1												N1	N1	N1	N1												M1																				
B								M1	M1	M1	M1				A1	A1	A1	A1				N1	N1	N1	N1												M1	M1	M1	M1												A1	A1	A1	A1												N1	N1	N1	N1												M1													
C	N1	N1	N1	N1				M1	M1	M1	M1				A1	A1	A1	A1				N1	N1	N1	N1												M1	M1	M1	M1												A1	A1	A1	A1												N1															M1													
D								N1	N1	N1	N1				M1	M1	M1	M1				A1	A1	A1	A1				N1	N1	N1	N1												M1	M1	M1	M1												A1	A1	A1	A1												N1															M1						
E	A1	A1	A1	A1				N1	N1	N1	N1				M1	M1	M1	M1				A1	A1	A1	A1				N1	N1	N1	N1												M1	M1	M1	M1												A1															M1																					
F								A1	A1	A1	A1				N1	N1	N1	N1				M1	M1	M1	M1				A1	A1	A1	A1				N1	N1	N1	N1												M1	M1	M1	M1												A1															M1														

Each team operates a 4 on, 4 off pattern where the blocks of work are always the same shift and follow the order 4 M1, 4 A1, 4N1. The fact that the structure (4 on, 4 off) is the same as current patterns may make this option more attractive to staff, however, the block of 4 consecutive night shifts may be undesirable.

**Option 1B – 6 on, 6 off**

In order to overcome the issues with a run of 4 night shifts, option “ B “ below alternatively schedules the shifts into groups of 6 – 2 M1, 2 A1 and 2 N1 before 6 days off. Although this is better from a night shift perspective, it does require 6 consecutive days of 12 hour shifts.

	1							2							3							4							5							6							7																							
	Mo	Tu	W	Th	Fri	Sa	Su	Mo	Tu	W	Th	Fri	Sa	Su	Mo	Tu	W	Th	Fri	Sa	Su	Mo	Tu	W	Th	Fri	Sa	Su	Mo	Tu	W	Th	Fri	Sa	Su	Mo	Tu	W	Th	Fri	Sa	Su	Mo	Tu	W	Th	Fri	Sa	Su																	
A	M1	M1	A1	A1	N1	N1								M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1							
B	A1	A1	N1	N1										M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1							
C	N1	N1					M1	M1	A1	A1	N1	N1													M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1																
D							M1	M1	A1	A1	N1	N1													M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1																
E							M1	M1	A1	A1	N1	N1													M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1																
F							M1	M1	A1	A1	N1	N1													M1	M1	A1	A1	N1	N1															M1	M1	A1	A1	N1	N1																

**Option 1C – 6 week rotating**

Option “ C “ below is a compromise between the two previous options. It is a rotating 6 week cycle of predominantly 4 on, 4 off pattern with one instance of 5 days working (and one instance of 5 days off):

	1					2					3					4					5					6																																																										
	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su	M	Tu	W	Th	Fri	Sa	Su																																										
A	M1	M1	N1	N1				A1	A1	A1	A1																M1	M1	N1	N1	N1															M1	A1	A1	A1																M1	M1	N1	N1																
B		A1	A1	A1	A1										M1	M1	N1	N1	N1															M1	A1	A1	A1				M1	M1	N1	N1																M1	M1	N1	N1																					
C			M1	M1	N1	N1	N1								M1	A1	A1	A1															M1	M1	N1	N1																M1	M1	N1	N1				A1	A1	A1	A1																						
D					M1	A1	A1	A1							M1	M1	N1	N1															M1	M1	N1	N1																A1	A1	A1	A1				M1	M1	N1	N1																						
E	A1							M1	M1	N1	N1										M1	M1	N1	N1																A1	A1	A1	A1				M1	M1	N1	N1																M1	A1	A1																
F	N1	N1						M1	M1	N1	N1										A1	A1	A1	A1																M1	M1	N1	N1																M1	A1	A1	A1																M1	M1					

**Fire Control Officers and Mobilising Officers**

In addition to the 3 options outlined above for FCOps and LFCOps, there is a requirement in the control centre to schedule 1 Fire Control Officer and 1 Mobilising Officer on shift at all times. Note here that the requirement is to schedule these staff members on shift – it is assumed that abstractions are managed by the ‘acting up’ of other staff members if necessary, as is currently the case.

In scheduling Fire Control Officers and Mobilising Officers we have take into consideration the trade off between team working (i.e. individual officers being assigned to a certain ‘watch’ and always being on shift with them) and efficiency.

The simplest way of scheduling 1 person 24/7 is to follow a similar structure to the current roster:

	1							2							3							4							5							6							7																																															
	Mon	Tue	We	Thu	Fri	Sat	Sun	Mon	Tue	We	Thu	Fri	Sat	Sun	Mon	Tue	We	Thu	Fri	Sat	Sun	Mon	Tue	We	Thu	Fri	Sat	Sun	Mon	Tue	We	Thu	Fri	Sat	Sun	Mon	Tue	We	Thu	Fri	Sat	Sun	Mon	Tue	We	Thu	Fri	Sat	Sun	Mon	Tue	We	Thu	Fri	Sat	Sun																																		
A	M1	M1	N1	N1				M1	M1	N1	N1																M1	M1	N1	N1																M1	M1	N1	N1																M1	M1	N1	N1																M1	M1	N1	N1			
B	N1	N1						M1	M1	N1	N1										M1	M1	N1	N1																M1	M1	N1	N1																M1	M1	N1	N1																M1	M1	N1	N1									
C					M1	M1	N1	N1							M1	M1	N1	N1															M1	M1	N1	N1																M1	M1	N1	N1																M1	M1	N1	N1																
D			M1	M1	N1	N1								M1	M1	N1	N1															M1	M1	N1	N1																M1	M1	N1	N1																M1	M1	N1	N1																	

Although in the current roster pattern the M1 shifts are 9 hours and the N1 shifts are 15 hours, it is intended to move to two 12 hour shifts, the start/end time are still under consideration. To cover this rota will require 4 Fire Control Officer and 4 Mobilising Officers.

This system is compatible with any of the options 1A-1C, however, in choosing this system the concept of team/'watch' working would be different between the call operators and the management of the centre – i.e. the shift patterns would not match those of the call operators. This has been considered and it is felt there are benefits to such arrangements, supporting a wider exchange management learning.

## **Conclusions**

In order for the Service to meet service standards and to provide value for money, it is crucial to conduct reviews of different areas of the Service. A review and analysis of MACC workloads has revealed an over provision of staff and an imbalance of staffing levels at certain times of the day versus the call profile.

All three staffing options above offer a more efficient solution than the current duty system without any loss of service and as such it is incumbent to align the staffing levels with the call profile.